

ZCR'KIN, L.M.; PETSYUKHA, Yu.A.; STADNIK, Ye.V.; YAKOVLEV, Yu.I.

Gas saturation in the formation waters of the Lower
Carboniferous and Upper Devonian carbonate sediments in the
southeastern part of the Russian Platform. Trudy VNIIGAZ
no. 25:38-94 165. (MIRA 18:12)

69910

s/109/60/005/04/026/028 E140/E435

9.1300 **AUTHORS:**

Chirkin, N.M. and Stadnik, Yu.G.

TITLE:

On Certain Properties of a Coaxial Waveguide/with Both

Conductors Loaded by Discs

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol 5, Nr 4,

pp 694-698 (USSR)

ABSTRACT:

This is a continuation of earlier published work (Ref 1,2). It is assumed that the disc spacing is

substantially less than the wavelength in the waveguide whose walls are assumed ideally conducting. It is shown

that the coaxial waveguide with loading on both

conductors have the same dispersion properties as coaxial waveguides with loading on only a single conductor. number of passbands however is increased, for example the

first two passbands of the waveguide with loaded

conductors occur in the same frequency interval as the first passband of a single-loaded coaxial waveguide. It is shown that anti-phased and co-phased waves with complex

resultant field may exist simultaneously. This is

accompanied by deterioration of the delay properties of

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On Certain Properties of a Coaxial Waveguide with Both Conductors Loaded by Discs

the waveguide. There are 2 figures, 1 table and 7 references, 6 of which are Soviet and 1 English in Russian translation.

SUBMITTED: September 18, 1958

Card 2/2

ACC NR. AR6035276 SOURCE CODE: UR/0169/66/000/009/D016/D016

AUTHOR: Stadnik, G. G.; Stadnik, Yu. N.

TITLE: Use of seismic prospecting in the Belorussian massif to map the crystalline basement

SOURCE: Ref. zh. Geofizika, Abs. 9D106

REF SOURCE: Sb. Geol. i perspektivy metallonosn. dokembriya Belorussii i smezhu. r-nov. Minsk. Nauka i tekhnika, 1965, 96-99

TOPIC TAGS: seismic prospecting, geophysics, gravimetric survey, geomagnetic field, map

ABSTRACT: A basis is given for practical multidisciplinary geophysical investigations during the mapping of a crystalline basement and during determination of its petrographic composition. The correlative method of refracted waves with its high frequency modification, which is explained by the shallowness of the basement (100--500 m) is recommended, together with magnetic and gravimetric surveys. The connection of the tension of the magnetic field with the

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5/120/62/000/004/037/047 E140/E420

Gol'din, L.L., Stadnikov, A.G.

AUTHORS: TITLE:

Arrangement of the magnet blocks along the

accelerator ring

PERIODICAL: Pribory i tekhnika eksperimenta, 7no.4, 1962, 199-202

The scatter in low-field characteristics (injection conditions) of the manufactured magnets is such that special measures must be taken to reduce its effects. The article describes the theoretical considerations and the computations undertaken to find an arrangement of the magnets such that the distortion of the equilibrium orbit be minimized. computations were carried out manually, with verification of the Good agreement was obtained. final arrangement on a computer. There are 2 figures.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki

GKAE (Institute of Theoretical and Experimental

Physics GKAE)

SUBMITTED:

March 29, 1962

Card 1/1

STADMIKOV, A. G.

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5/120/62/000/004/042/047 E140/E420

AUTHORS:

Barmin, V.V., Bysheva, G.K., Tumanov, G.K., Agapkin, I.I., Andreyev, V.N., Veselov, M.A., Gol'din, L.L., Luzin, V.N., Radkevich, I.A., Sokolovskiy, V.V., Stadnikov, A.G.

TITLE:

Investigation and correction of the horizontal component of the low-induction magnetic field of the

proton synchrotron

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 223-229 TEXT: Permalloy probes modulated at 10 kcs were used to measure the position of the neutral plane of the magnetic field. It was found that the distortion of the neutral plane in the residual field was determined mainly by the neutral pole. This distortion decreased as the excitation of the C-blocks was increased. Due to hysteresis effects, the measurements had to be carried out under operating conditions. A description of the probe and its associated circuits is given. The measurements show that 67 of the magnets have a deviation of the neutral plane in the range + 0.5 mm, 16 magnets have 0.5 to 0.6 mm, 3 magnets 0.6 to 0.7 mm Card 1/2

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652810010-7

S/120/62/000/004/042/047 E140/E420

Investigation and correction ...

and 12 magnets > 0.7 mm. The average error of measurement is + 0.17 mm. The method of correcting the neutral plane errors by means of windings on the neutral poles is described. There are

ASSOCIATION: Institut teoreticheskoy i eksperimental noy fiziki
GKAE (Institute of Theoretical and Experimental

Physics GKAE)

April 11, 1962 SUBMITTED:

Card 2/2

CIA-RDP86-00513R001652810010-7" APPROVED FOR RELEASE: 08/25/2000

ACCESSION NR: AP4041040

5/0120/64/000/003/0152/0157

AUTHOR: Kats, M. Ya.; Stadnikov, A. G.; Gol'din, L. L.; Baranov, V. V.

TITLE: Method for designing the pole shape for single-zone isodynamic magnetic separators

SOURCE: Pribory* i tekhnika eksperimenta, no. 3, 1964, 152-157

TOPIC TAGS: separator, magnetic separator, single zone magnetic separator, isodynamic magnetic separator

ABSTRACT: A method of calculating isodynamic fields is described; it is suitable for both the single-zone magnetic separator design and the measurements of magnetic susceptibility. Since the neutral pole obstructs the entrance into the gap, it is desirable that the isodynamic field be created without the neutral pole. Formulas that describe the pole shape ensuring a quasi-isodynamic field without the neutral pole are developed. Curves plotted in dimensionless coordinates

Gard 1/2

ACCESSION NR: AP4041040

based on experimental data are submitted as a verification of the formulas. Hints for the practical design of pole shapes are given. Orig. art. has: 4 figures and 16 formulas.

ASSOCIATION: Geologicheskiy institut AN SSSR (Geology Institute, AN SSSR)

SUBMITTED: 03Jul63

ENGL: 00

SUB CODE: EM

NO REF SOV: 011

OTHER: 008

GALAKTIONOV, A.T., kandidat tekhnicheskikh nauk; PATSKEVICH, I.P. STADNIKOV, G.D.: LUGINA, N.A., tekhnicheskiy redaktor.

[Electric welder; handbook for workers] Elektrosvarshchik; spravochnoe posobie dlia rabochikh. Isd.2-3, dop. i perer. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 303 p. (Electric welding) (MLRA 8:8)

SHIROKOV, Sergey Ivanovich, inzh. [deceased]: Prinimali uchastiye:

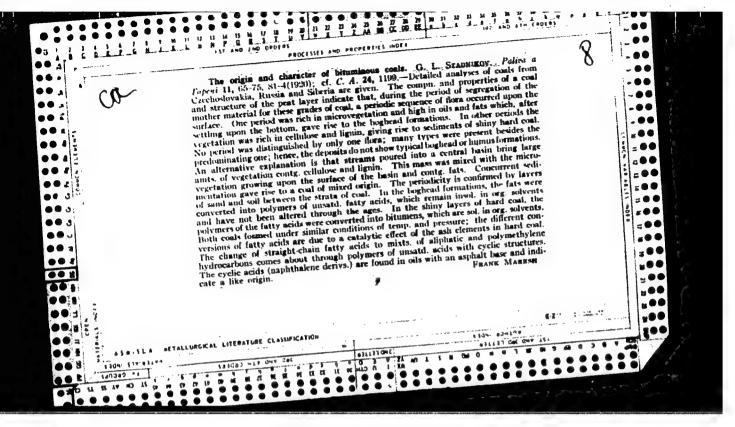
ZAYETS, V.N., dotsent; GUREVICH, M.I., dotsent. STADNIKOV, G.D.,
inzh., retsenzent; SHUL'MAN, L.G., inzh., retsenzent; DUGINA,
N.A., tekhn.red.

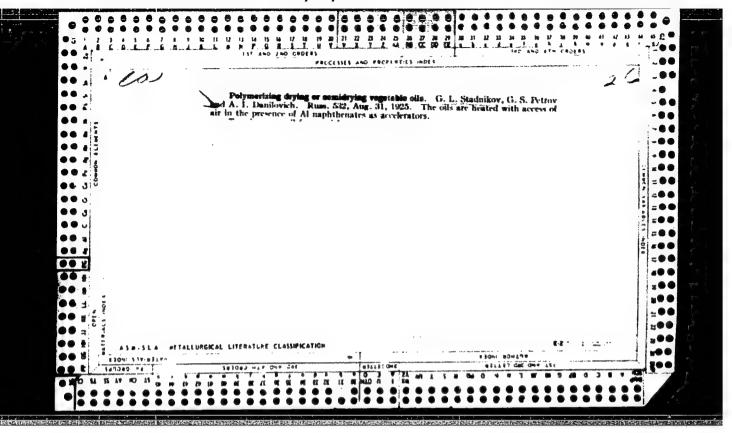
[Production of boilers] Kotel'noe proizvodstvo. Izd.3. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 280 p. (MIRA 14:3)

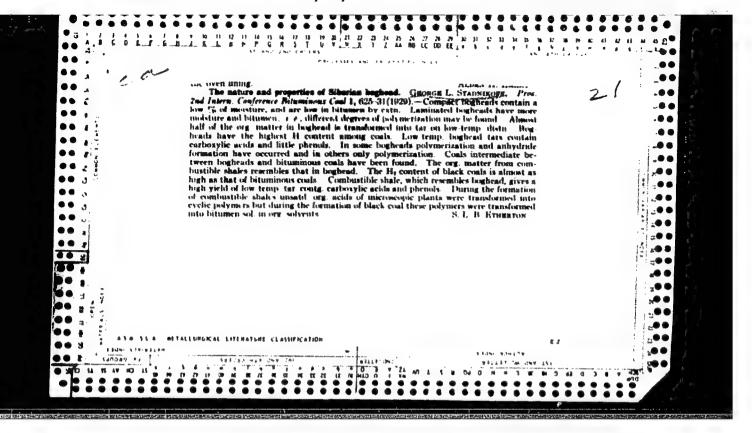
(Boilers)

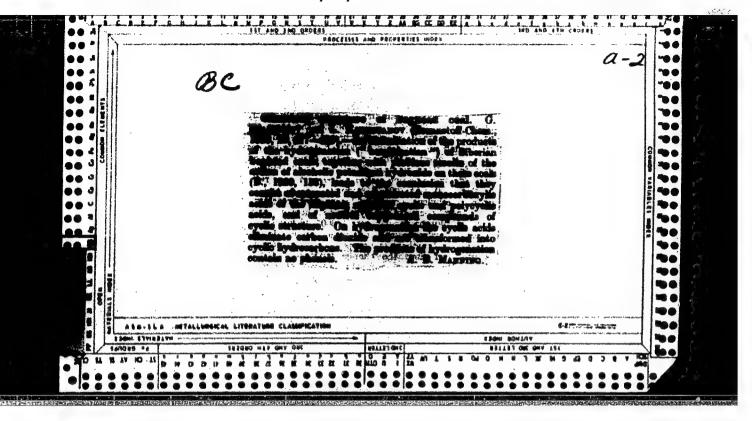
GALAKTIONOV, Andrey Timofeyevich, kand. tekhn. nauk; PATSKEVICH, Ivan Romanovich; STADNIKOV, Georgiy Dem'yanovich; DUGINA, N.A., tekhn. red.

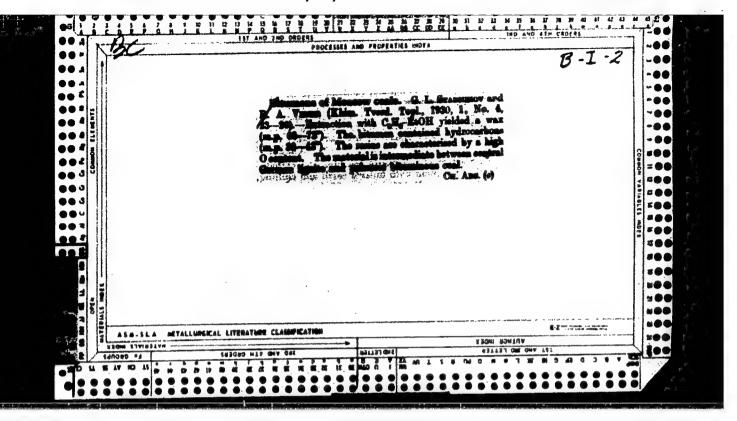
[Electric welding; a welder's handbook] Elektrosvarshchik; spravochnoe posobie dlia rabochikh. Izd.3., dop. i perer. Moskva, Mashgiz, 1961. 392 p. (MIRA 15:2) (Electric welding)

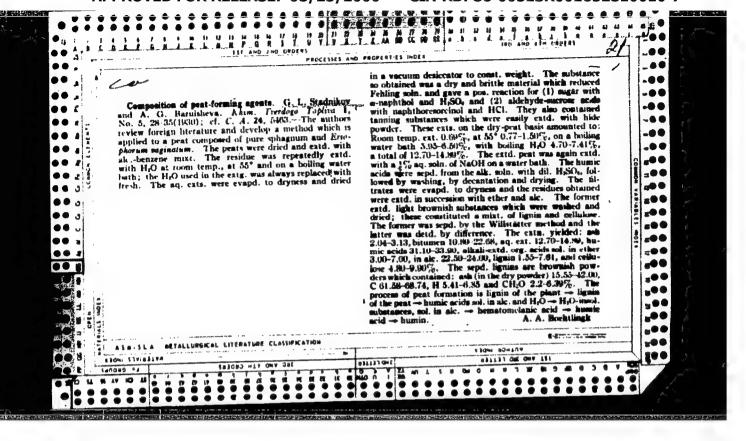


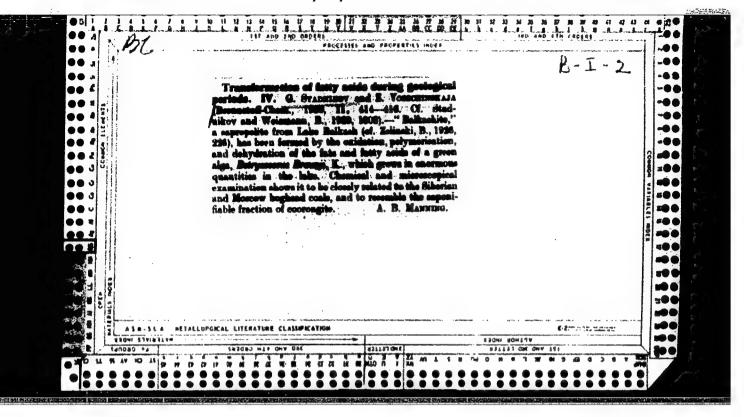


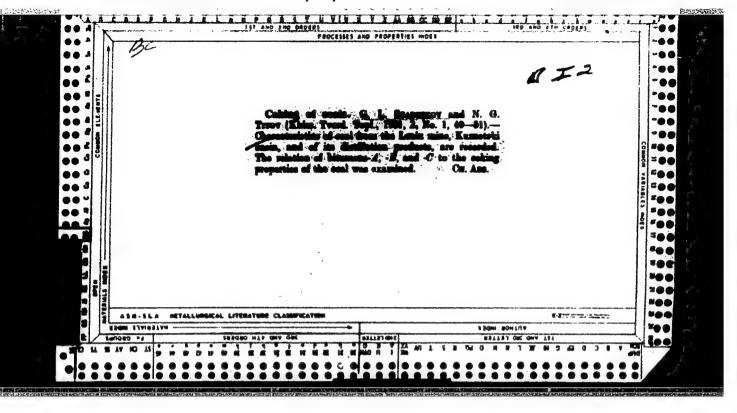


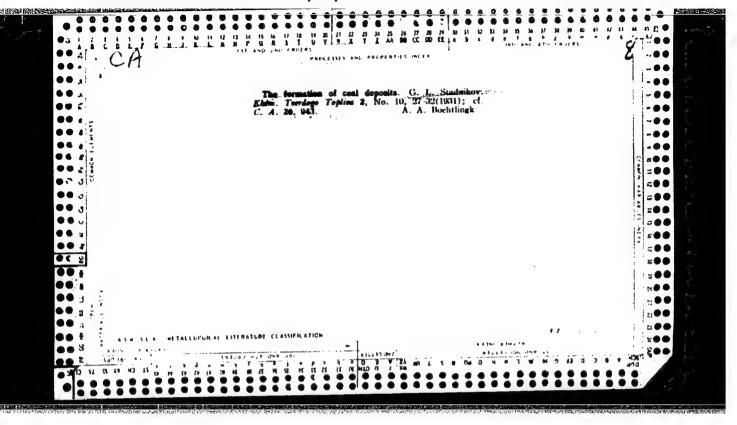


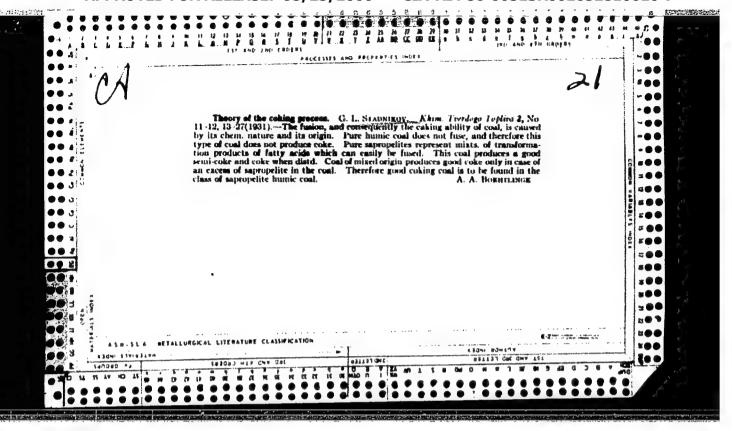


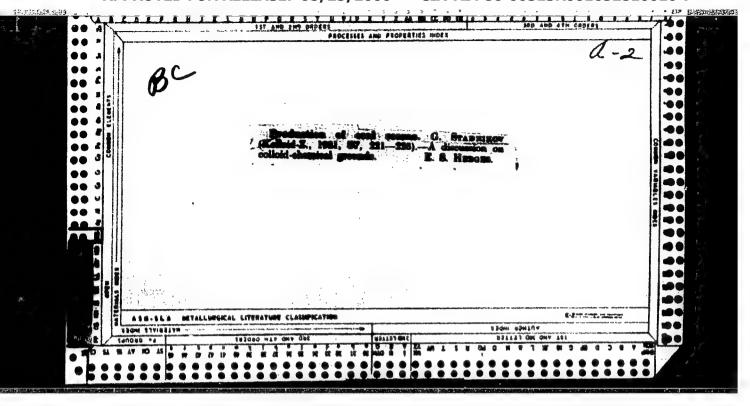


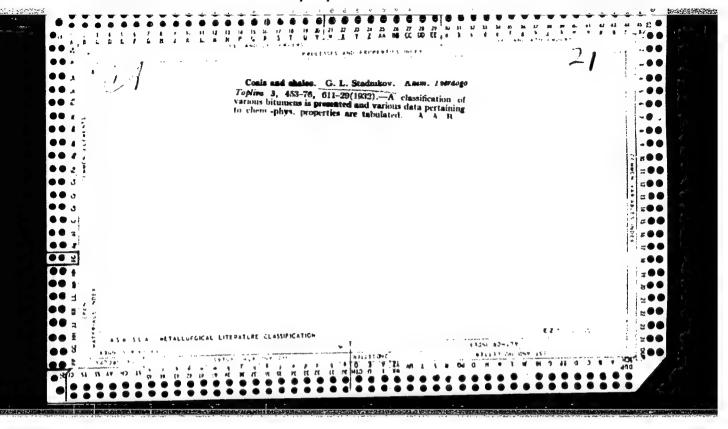


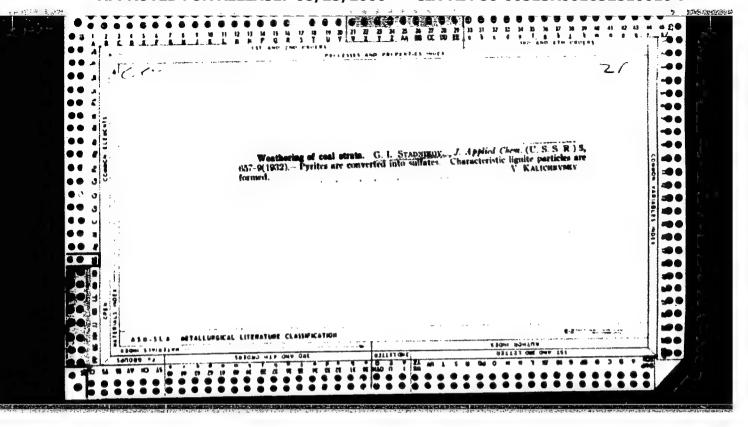


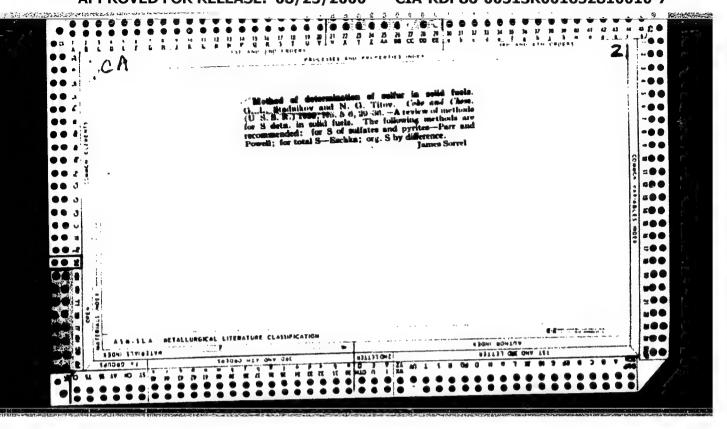


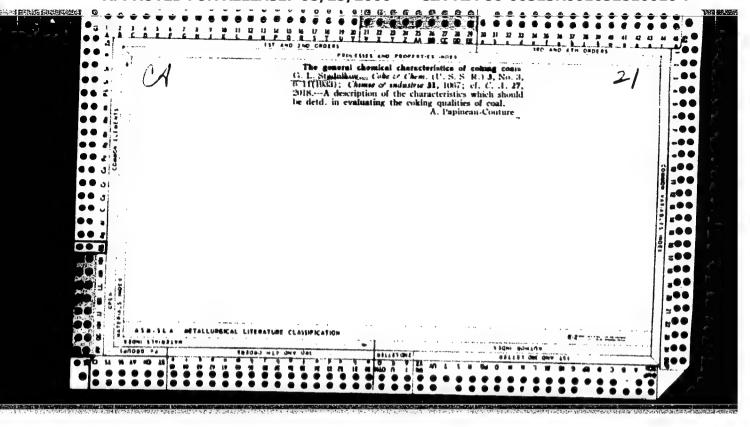


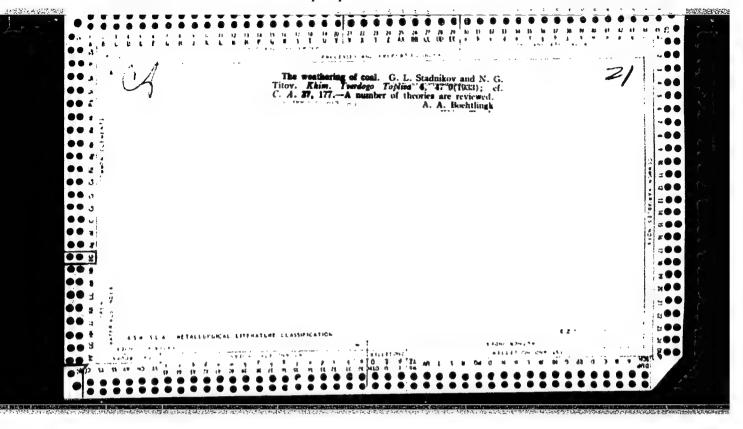


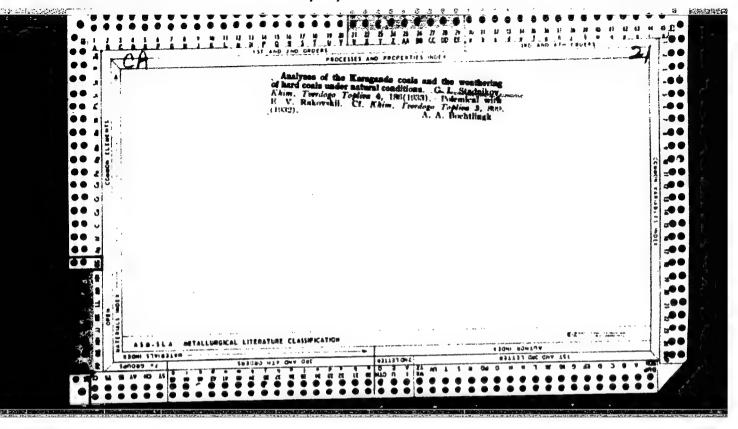


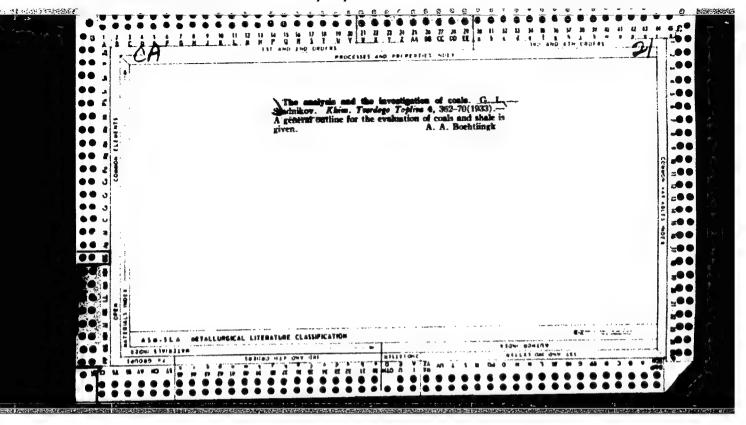


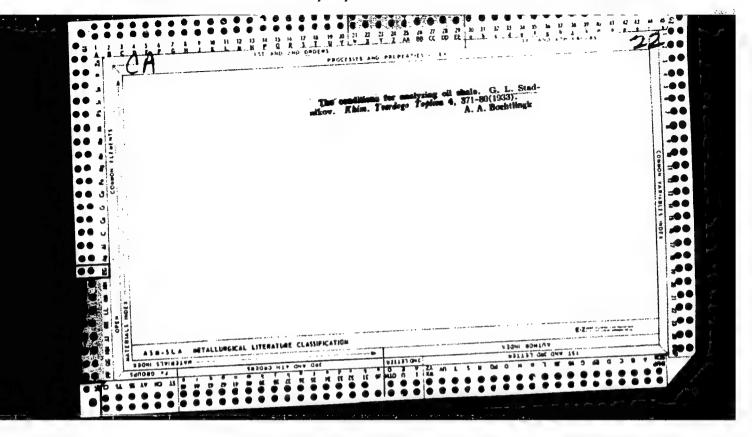


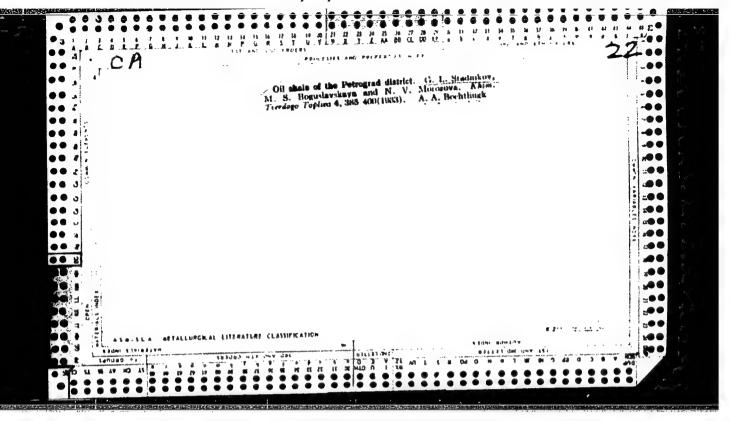


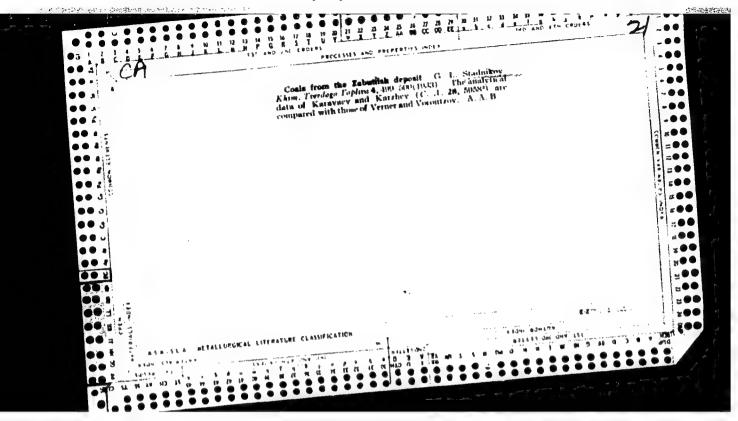


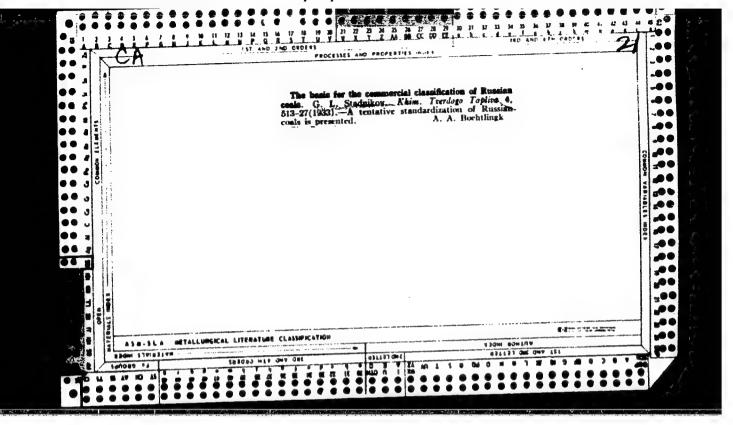


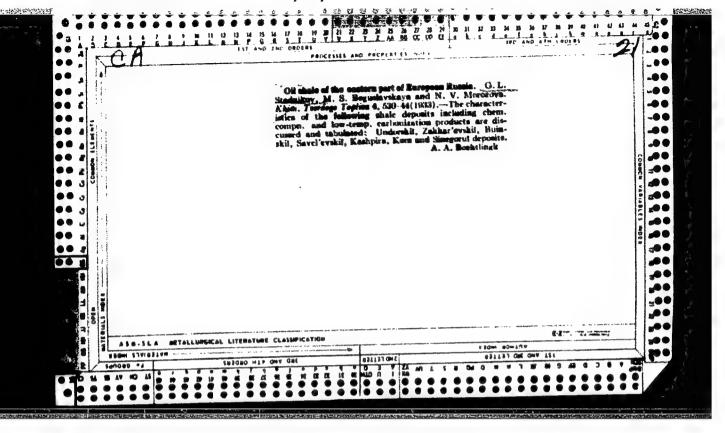








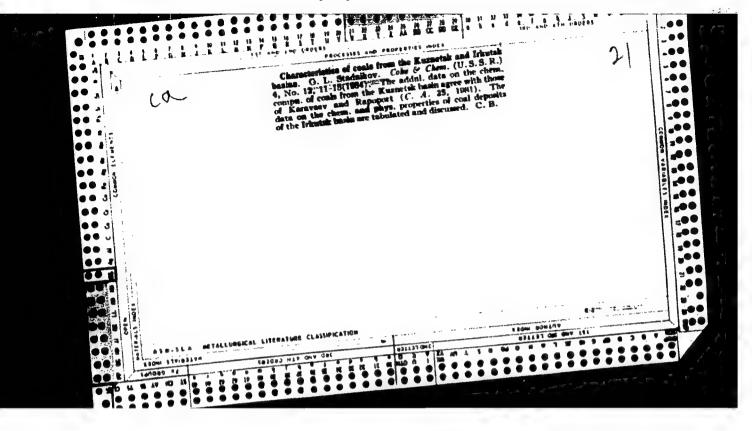


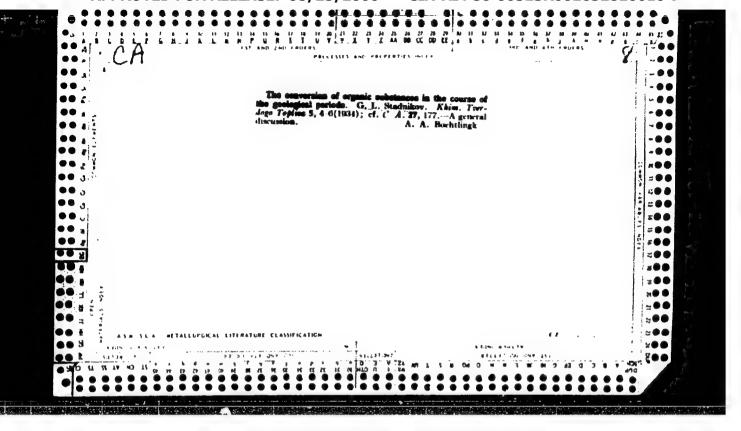


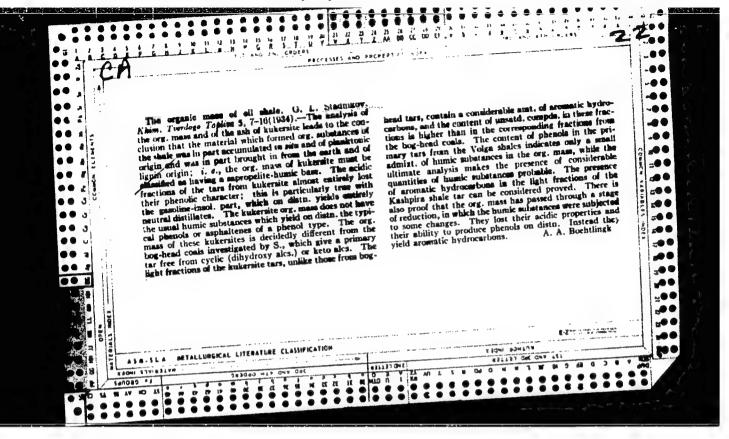
SPAPATHOV, G.L.

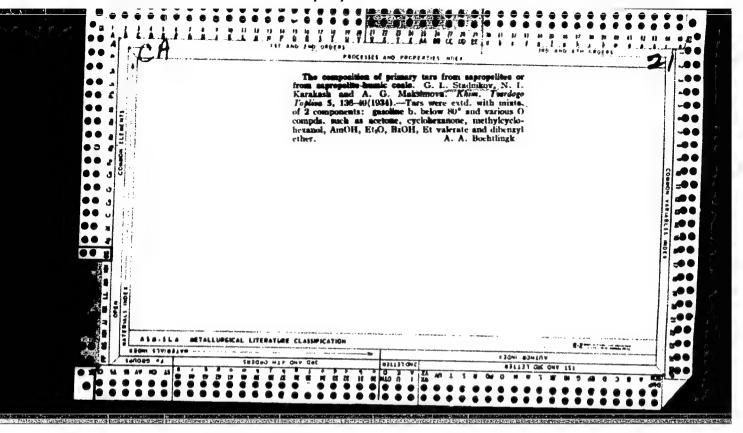
K Voprosů O Metodakh Analiza Goryuchikh Slantsev, Goryuchiye Slantsy, 1934, No. 3, 44.

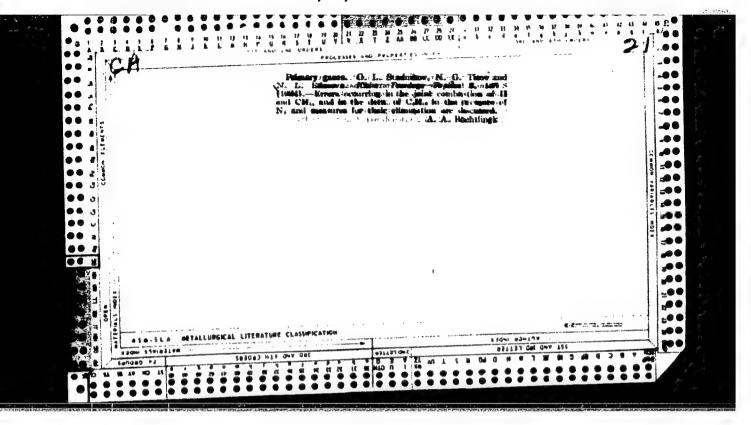
SO: Goryuchiye Slantsy #1934-35, TN .871 G .74

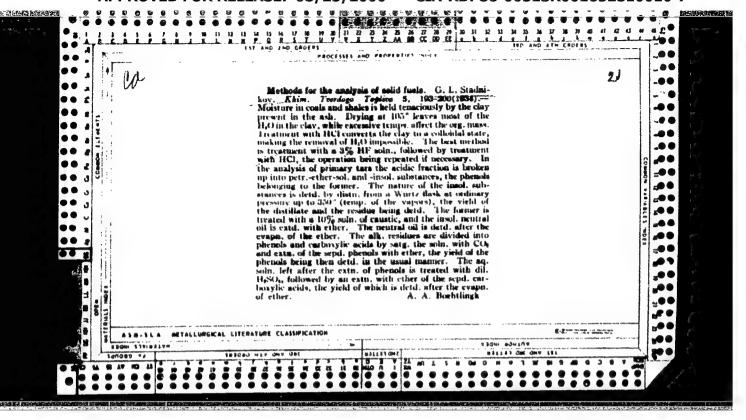


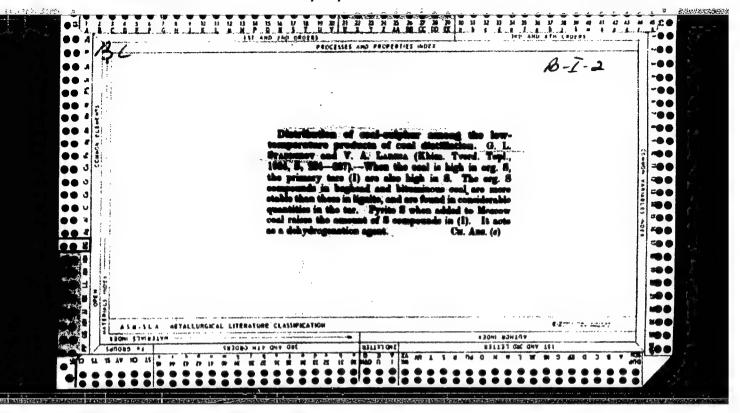


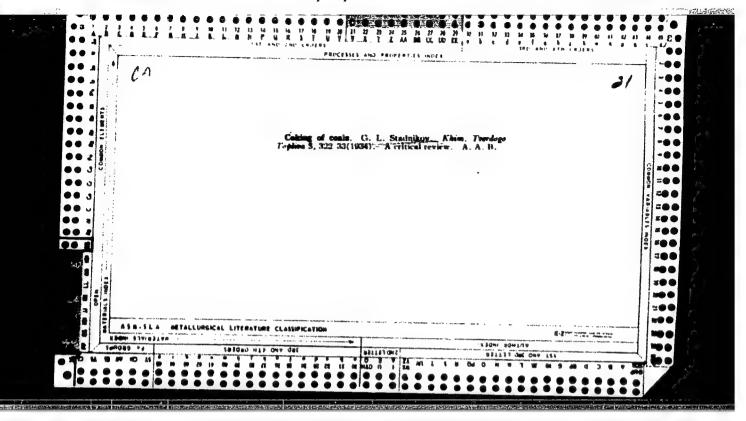


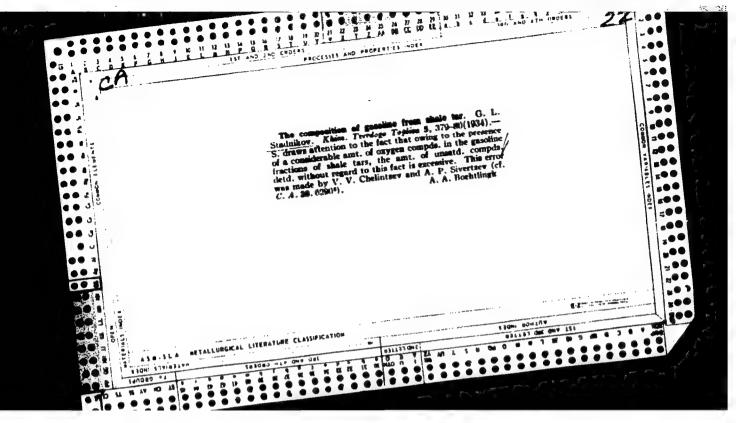


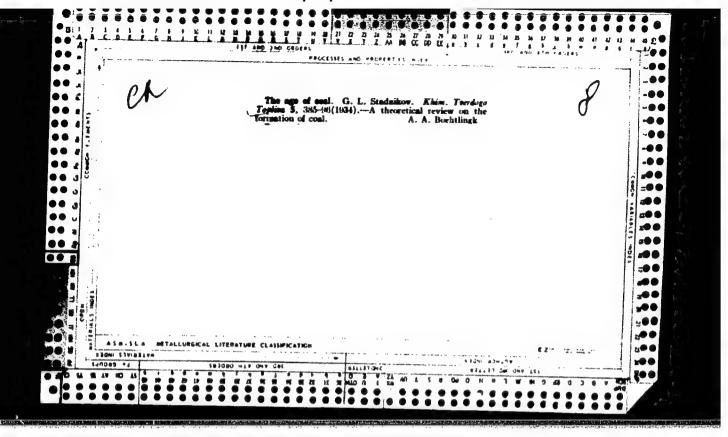


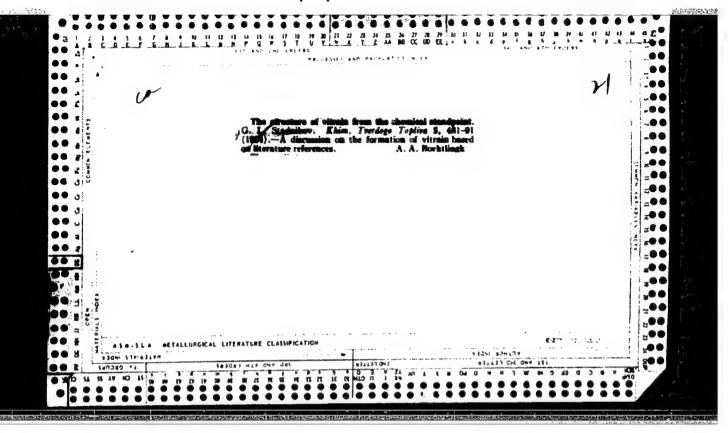


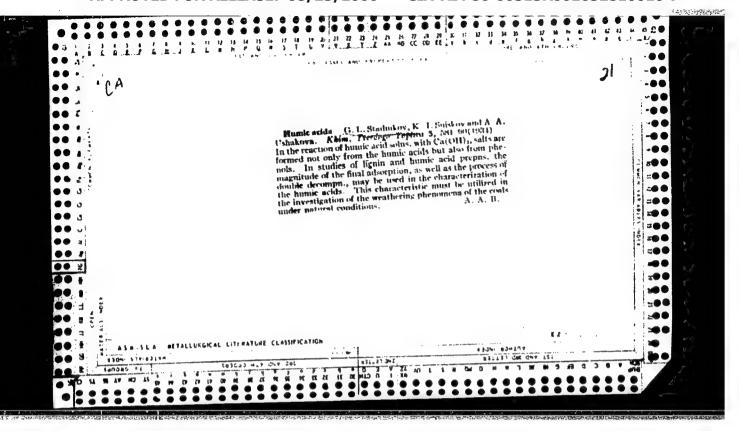


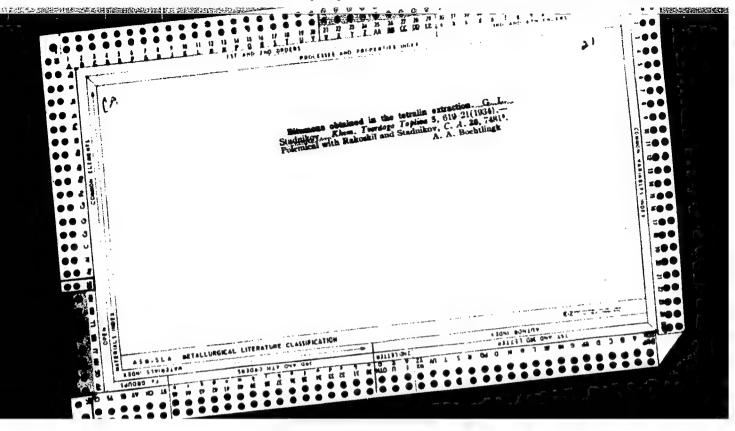


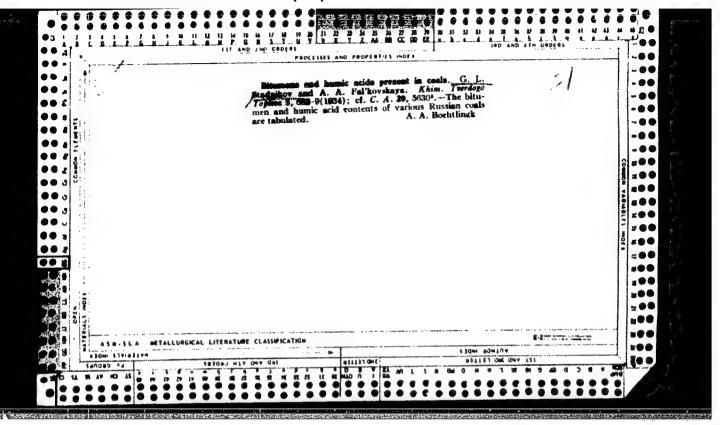


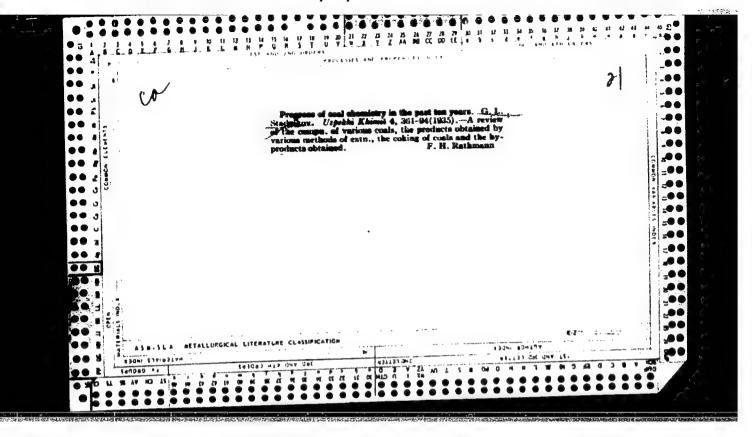


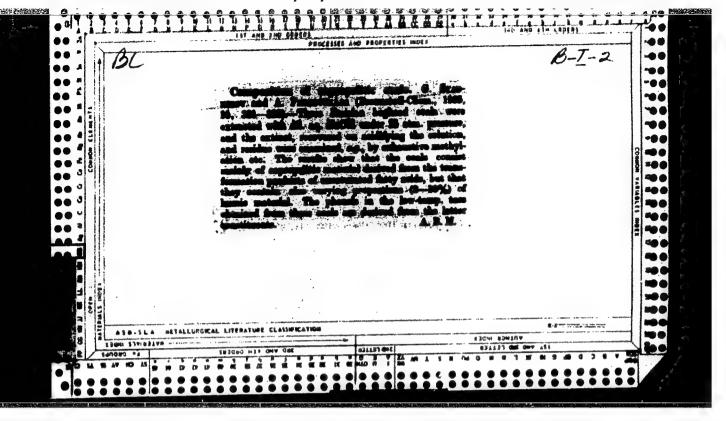










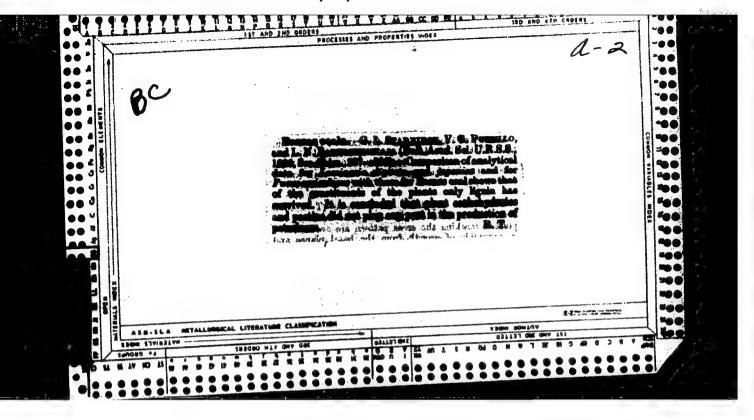


STABLIFOV, Georgii Leont 'evich.

(The analysis and study of coal) 2., perer. i znachitel 'no dop. izd.
Moskva, Izd-vo Akademii nauk SSSR, 1936. 215 p. (50-Lh167)

TP325.S78 1936

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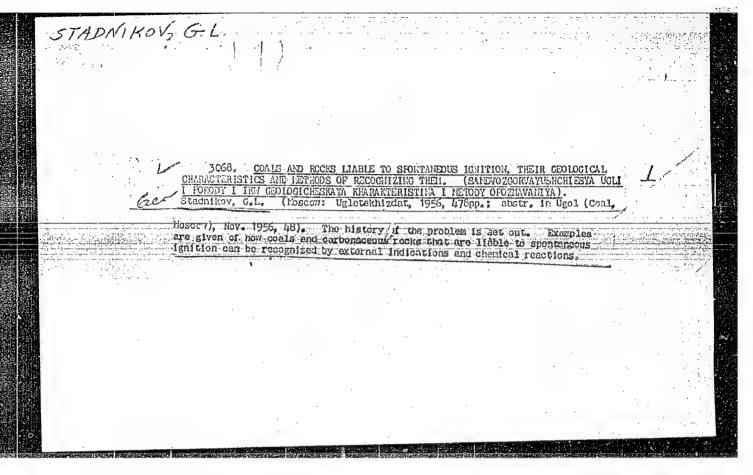
STADNIKOV, Georgii Leon 'evich.

(The origin of coal and petroleum) 3. perer. i dop. izd. 191 tablitsa i 138 risunkov. Moskva, Izd-vo Akademii nauk SSSR, 1937. 611 p. (50-41615)

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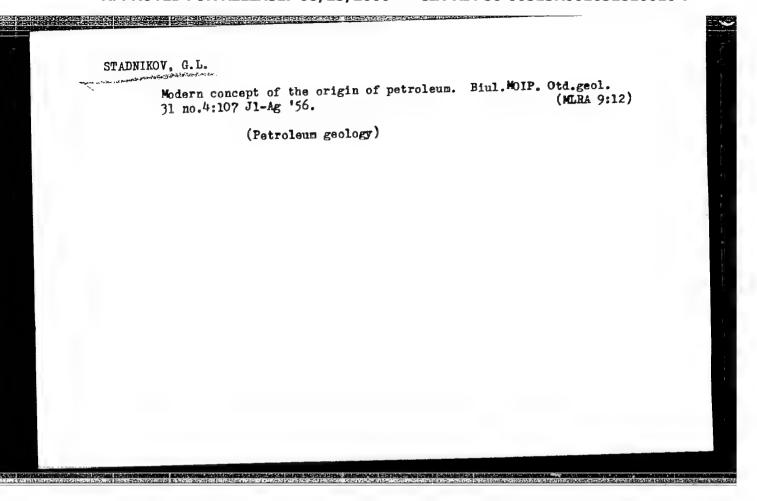
STADNIKOV, G.L.

Determination of phosphorus in coal by the phosphomolybdate method. Patent U.S.S.R. 78,459, Dec. 31, 1949. (CA 47 no.19:9866 '53)



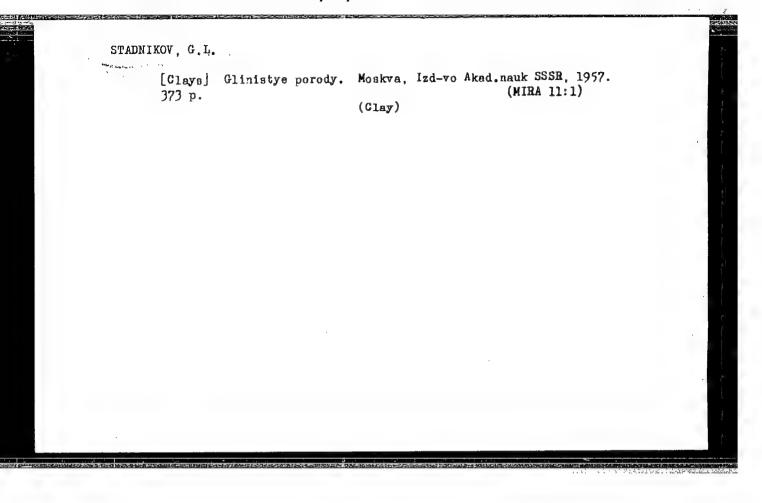
STADNIKOV, G.

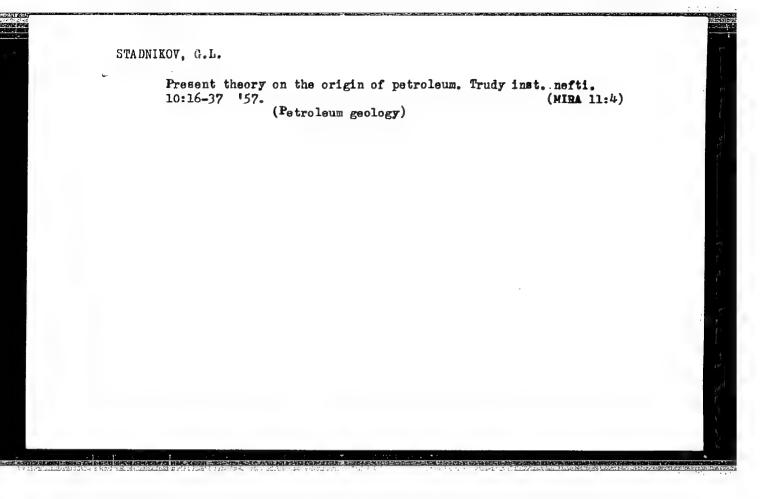
"Formation processes and properties of mineral fuels." S.M.Grigor'ev.
Reviewed by G.Stadnikov. Zhur.prikl. khim. 29 no.2:317-918 F 156.
(Coal) (Petroleum) (Grigor'ev, S.M.) (MIRA 9:6)



STADNIKOV. Georgiy Leontlyayich; LANIN, V.A., doktor khimicheskiy nauk, otvetstvennyy redaktor; PAVLOVSKIY, A.A., tekhnicheskiy redaktor

[Physical methods in coal research] Fizicheskie metody v issledovanii uglei. Moskva, Izd-vo Akademii nauk SSSR, 1957. 88 p. (MIRA 10:2) (Goal--Analysis)

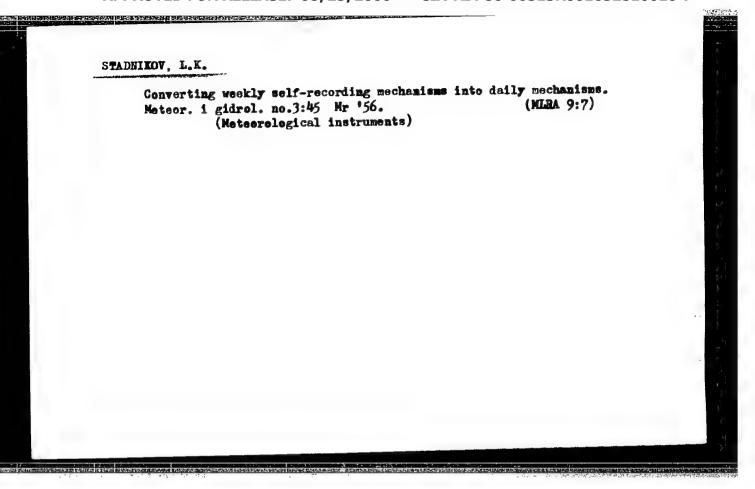




GOL'DELL'D, A.I.; STADNIKOV, G.F.

Determining the optimal density of a network in the preliminary prospecting of deposits forming ribbonlike shapes. Razved. i okh. nedr. 30 no.8:14-21 Ag '64. (MIRA 17:10)

1. Vostochno-Kazakhstanskoye geologicheskoye upravleniye.



VAN NAY_YAN' [Wang Nai-yen]; VIZI, I.; YEFIMOV, V.N.; KARZHAVINA, E.N.;
KIM KHI SAN; POPOV, A.B.; PIKEL'NER, L.B.; PSHITULA, M.I.;
STADNIKOV, T.; CHEN LIN-YAN'; CHARAPOV, E.I.; SHELONTSEV, I.I.;
SHIRIKOVA, N.Yu.: YAZVITSKIY, Yu.S.;

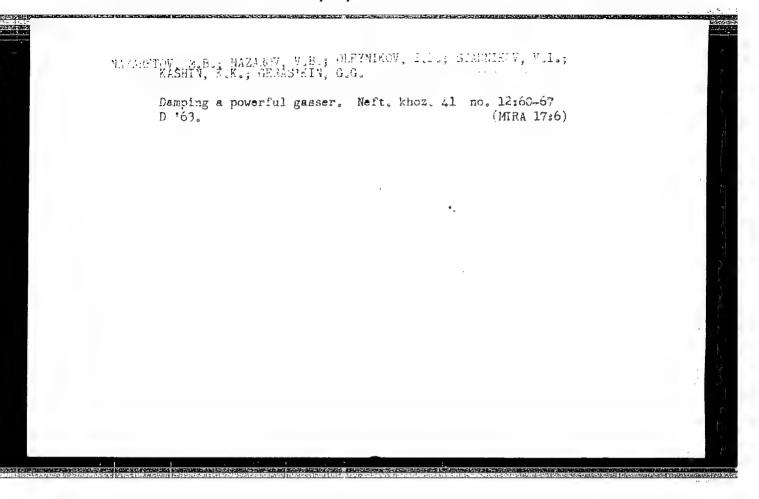
Neutron resonances in Rh¹⁰³. Zhur. eksp. i teor. fiz. 45 no.6:1743-1753 D'63. (MIRA 17:2)

1. Ob"yedinennyy institut yadernykh issledovaniy.

VAN NAY-YAN' [Wang Nai-yen]; ILIYESKU, N.; KARZHAVINA, E.N.; KIM KHI SAN; POPOV, A.B.; PIKEL'NER, L.B.; STADNIKOV, T.; SHARAPOV, E.I.; YAZVITSKIY, Yu.S.

Neutron resonances in praseodymium and therbium. Zhur. eksp. i teor. fiz. 47 no.1:43-51 Jl '64. (MIRA 17:9)

1. Ob"yedinennyy institut yadernykh issledovaniy.



STADMIKOVA, A.V., Cand Med Sci — (diss) "State of immunobiological reactions to different stages of tuberculosis infection." Khar'kov, 1959, 11 pp (Khar'kov State Med Inst) 200 copies (KL, 36-59, 120)

- 108 -

L 42979-65 EVIT (m)/EWP(j)/T Pc-4 RM ACCESSION NR: AP5009428

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19

AUTHOR: Torgov, V.G.; Nikolayev, A.V.; Mikhaylov, V.A.; Korolenok, L.N.; Stadnikova, L.G.; Kotlyarevskiy, I.L.

TITLE: Study of the extraction of uranyl nitrate by some derivatives of pyridine-N-oxide

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh nauk, no. 3, 1964, 95-104

TOPIC TAGS: uranyl nitrate extraction, uranium refining, pyridine oxide derivative, peroxyacetic acid, distribution isotherm, tributyl phosphate

ABSTRACT: The article describes new compounds of uranyl nitrate with derivatives of pyridine-N-oxide (synthesized by oxidizing the corresponding pyridines with peroxyacetic acid), and discusses the mechanism of extraction of uranyl nitrate by some of them. With regular pyridine-N-oxides containing one $N_i > 0$ group, uranyl nitrate forms compounds of the composition $UO_2(NO_3) \cdot 2P_VO_X$; with molecules containing two N > 0 groups, it forms the compounds $UO_2(NO_3) \cdot 2P_VO_X$. Isotherms of the distribution of uranyl nitrate between water and solutions of pyridine-N-oxides in some organic solvents at $25 \pm 0.05C$ are plotted. The graphs show that the extraction by \angle -alkylpyridine-N-oxides in the region of uranyl nitrate concentrations corresponding to the linear portions $UO_2(NO_3) \cdot 2P_2(NO_3) \cdot 2P_2(NO_$

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ACCESSION NR: AP5009428

of the isotherms and when tributyl phosphate is used is determined by the process

$$UO_2^{2+}$$
 ag + $2NO_3^-$ aq + $2PyOx_{org} \rightleftharpoons UO_2(NO_3)_2 \cdot 2PyOx_{org}$.

To evaluate the extracting capacity of the various \mathcal{K} -alkylpyridine-N-oxides, the equilibrium constants of this process were calculated. It was shown that these oxides are much more effective extracting agents for $\mathrm{UO}_2(\mathrm{NO}_3)_2$ than tributyl phosphate.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR, Novosibirsk (Institute of Inorganic Chemistry, Siberian Branch, Academy of Sciences of the SSSR)

SUBMITTED: 10Jul64

ENCL: 00

SUB CODE: IC

NO REF SOV: 005

OTHER: 003

Card 2/2

KNYAZEVA, M.S. (Moskva), STADNIKOVA, M.V. (Moskva)

Analysis of phenol mixtures by the oxygen scrption method. Isv.
AN SSSR. Otd. tekh. menk. Met. i topl. no.6:182-184 E-D 160.

(MIRA 13:12)

(Phenols—Analysis)

KNYAZEVA, M.S. (Moskva); STADNIKOVA, M.V. (Moskva)

Fhenolic hydroxyls in natural products. Izv. AN. SSSR. Otd. tokh. nauk. Met. i topl. no.3:191-196 My-Je '61. (MIRA 14:7)

(Lignin) (Humic acid) (Hydroxyl group)

TSATUROV, A.I.; STADNIKOVA, N.K.

New data on oil and gas potentials of upper Cretaceous sediments in the Karabulak-Achaluki area. Geol. nefti supplement to no.8: 64-70 **158. (MIRA 11:9)

1. Checheno-Ingushskiy sovnarkhoz.
(Sunzha Range--Petroleum geology)
(Sunzha Range--Gas, Natural--Geology)

TSATUROV, A.I.; STADNIKOVA, N.K.

Petroleum potential of upper Cretaceous sediments in the central part of the Terek Range. Geol. nefti i gaza 4 no. 12:1-3 D '60. (MIRA 13:12)

1. Upravleniye nefteperrabatyvayushchey i gazovoy promyshlennosti Checheno-Ingushetskoy ASSR. (Terek Range--Petroleum Geology)

38446 \$/089/62/012/006/009/019 B102/B104

26 2245

AUTHORS: Bally, D., Gheorghiu, Z., Stadnikova, T.

TITLE:

Total neutron cross sections for As, Se, Sb, and Te in the

energy range 0.0027 - 0.0100 ev

PERIODICAL: Atomnaya energiya, v. 12, no. 6, 1962, 514 - 519

TEXT: The cross sections measured by the authors have hitherto been studied only in the range $E_n > 0.01$. The measurements were made with and without a second collimator and using a neutron crystal spectrometer with a plane mica single crystal. An CHM-8 (SNM-8) counter filled with BF₃ was used as detector. The resolution $\Delta \lambda/\lambda$ of the instrument with two collimators was 0.015. The specimens were relatively pure, except Sb which contained about 1 % impurities. Grain size varied between 0.8 and 50 μ . $\sigma = f(\lambda)$ is illustrated graphically. (1) As: The total scattering cross section was calculated by assuming 5 barns for the coherent scattering cross section, and 3 ± 0.6 barns was obtained for the incoherent one. The absorption cross sections for neutrons with 2200 m/sec were assumed to be 4.3 and 4.9 barns. (2) Se: The results are consistent with those of Card 1/2

S/089/62/012/006/009/019 B102/B104

Total neutron cross sections for ...

Egelstaff (AERE, N/R 1147). 12.5 barns was assumed as absorption cross section, and 10 barns as coherent scattering cross section. Hence, the incoherent scattering cross section was 4.5 barns. (3) Sb: The coherent scattering cross section was assumed to be 3.8 barns, and the absorption cross section 5.7 and 7.6 barns. Hence, the incoherent scattering cross section was 0.5 barn, the error exceeding 50 %. The scattering cross section for small angles and $E_{\rm n}=0.003-0.0045$ ev was ~ 2 barns. (4) Te:

For an absorption cross section of 4.7 barns and a coherent scattering cross section of 4 barns, an incoherent scattering cross section of 3 barns was obtained, the error being 10 %. There are 6 figures.

ASSOCIATION: Institut atomnoy fiziki AN Rumynskoy Narodnoy Respubliki Bukharest (Institute of Atomic Physics of the AS of the Rumanian People's Republic, Bucharest)

SUBMITTED: November 4, 1961

Card 2/2

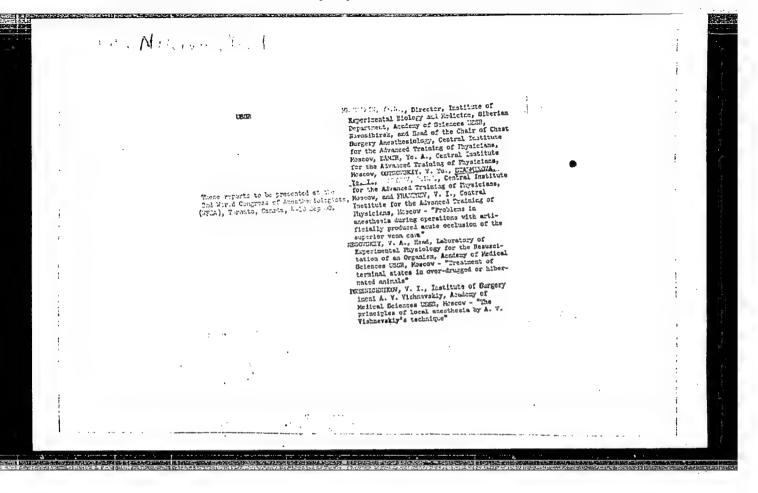
MESHALKIN, Ye.N.; STADNIKOVA, Ye.I.

Ganglionic block in operations on the heart and large vessels.

Khirurgiia 35 no.9:3-10 '59. (MIRA 13:12)
(HEART—SURGERY) (AUTONOMIC DRUGS)

"APPROVED FOR RELEASE: 08/25/2000 CIA-RI

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MIKAYELYAN, A. L., (Novosibirsk, Akademgorodok, d. 2-V, kv. 4; OSTROVSKIY, V. Yu.; STADNIKOVA, Ye. I.

Temporary cossation of the brain's blood supply. Grud. khir. no.5: 48-52 '61. (MIRA 15:2)

1. Iz kliniki grudnoy khirurgii i anesteziologii TSentral'nogo instituta usovershenstvovaniya vrachey (zav. - prof. Ye. N. Meshalkin) i Instituta eksperimental'noy biologii i meditsiny (dir. - prof. Ye. N. Meshalkin) AN SSSR Sibirskogo otdeleniya.

(BRAIN-BLOOD SUPPLY)

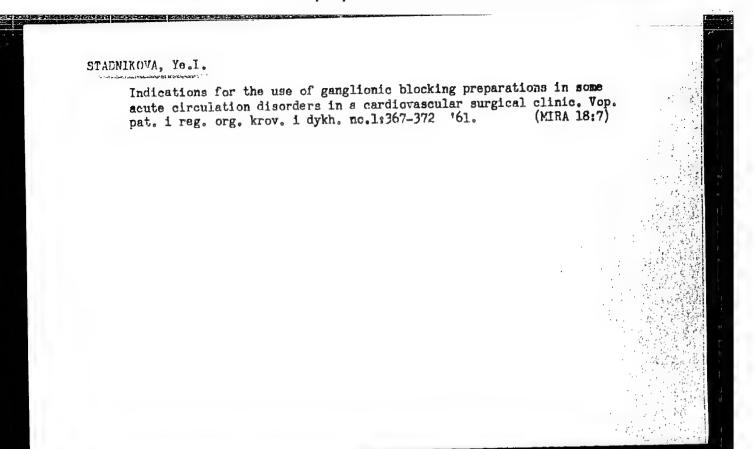
MESHALKIN, Ye.R.; ALEKHINA, R.G.; DAMIR, Ye.A.; STADNIKOVA, Ye.I.

Fluothane anesthesia with hypothermia in operations on the
"dry" heart. Eksper.khir.i anest. 6 no.4:22-24 161.

(HEART--SURGERY) (HYPOTHERMIA) (FLUOTHANE)

STADNIKOVA, Ye.I.; PANKRUSHINA, G.V.

Method of compensating for massive and rapid losses of blood. Trudy Inst. klin. i eksp. khir. AN Kazakh. SSR 9:60-63 '63. (MIRA 17:12)



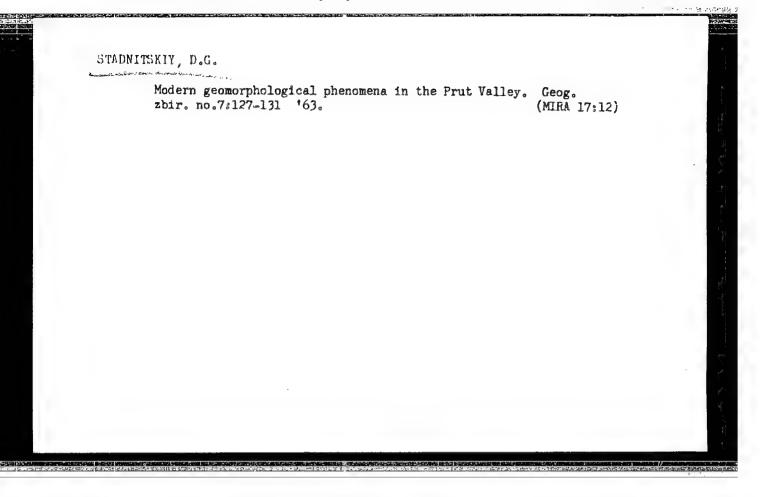
Cysts of the maxillary simus. Trudy gos.nauch.-issl.inst.
ulda, gorla i nosa. 6:387-393 '55. (MIRA 12:10)

1. Iz klinicheskogo otdeleniya (zav. - prof.A.A.Atkarskaya)
Gosudarstvennogo nauchno-issledovatel'skogo instituta ukha,
gorla i nosa.
(NOSE, ACCESSORY SINUSES OF--DISEASES) (CYSTS)

STALMITSKAYA, I. A., Candidate Med Sci (diss) -- "The problem of true cysts of the maxillary simuses". Moscow, 1959. 14 pp (Moscow Med Stomatological Inst of the Min Health RSFSR), 200 copies (KL, No 23, 1959, 173)

KUZ'MICHEV, A.P. (Moskva, 2-y Obydenskiy pereulok, d.13, kv.2);
STADNITSKAYA, I.A. (Moskva)

Metallic foreign body (knife fragment) in the left main bronchus. Grud. khir. 5 no.5:92-94 S-0'63. (MIRA 17:8)



STADNITSKIY, G.V.

Effect of dry disinfectants on germination in pines. Zashch.rast. ot vred. i bol. 7 no.4257 Ap '62. (MIRA 15:12)

1. Leningradskiy institut lesnogo khosyaystva.
(Speed-Disinfection) (Pine)

MINORANSKIY, V.A., aspirant; SOKOLOVA, T.A.; GAMPER, N.M., kand.sel'skokhoz. nauk; LESNIKOVSKAYA, A.Ya.; VLADIMIRSKAYA, N.S.; TELEYMANOV, N.K.; STADNITSKIY, G.V., nauchnyy sotrudnik; NAUMOV, F.V., nauchnyy sotrudnik

Practices in the use of new preparations. Zashch. rast. ot vred. i bol. 8 no.8:30-31 Ag '63. (MIRA 16:10)

1. Rostovskiy gosudarstvennyy universitet (for Minoranskiy).
2. Voronezhskaya stantsiya Vsesoyuznogo instituta zashchity rasteniy (for Sokolova). 3. Vsesoyuznyy institut zashchity rasteniy (for Gamper, Lesnikovskaya, Vladimirskaya). 4. Zaveduyushchiy entomologicheskim punktom Tetyushskogo rayona, Tatarskoy ASSR (for Teleymanov).
5. Nauchno-issledovateliskiy institut lesnogo khozyaystva, Leningrad (for Stadnitskiy, Naumov).

LAKH, V.I.; STADNYK, B.I.; KUZ'MA, Yu.B.

Thermoelectric stability of thermocouples from certain tungsten-rhenium alloys at high temperatures. Teplofiz. vys. temp. 1 no.2:299-305 S-0'63. (MIRA 17:5)

1. L'vovskiy gosudarstvennyy universitet imeni Iv. Franko.

L 19712-63 EPR/ENT(1)/EPF(c)/EPF(n)-2/ENP(q)/ENT(m)/BDS/T-2/ES(v)/ES(s)-2/ES(w)-2 AFFTC/ASD/SSD Ps-4/Pr-4/Pu-4/Pe-4/Pab-4/Pt-4 WW/MH

ACCESSION NR: AP3003205

\$/0115/63/000/006/0021/0022

AUTHOR: Margulis, O. M.; Usatikov, I. F.; Kamenetskiy, A. B.; Lakh, V. I.; Stadny*k, B. I.

TITLE: Refractory insulation of thermo-electrodes used in measuring high temperatures

SOURCE: Izmeritel naya tekhnika, no. 6, 1963, 21-22

TOPIC TAGS: insulation, refractory insulation, high-temperature measurements, VR-5 alloy, VR-15 alloy, VR-20 alloy

ABSTRACT: As porcelain caps and beads slipped over thermocouples withstand only temperatures of up to 1,000-1,500C, other materials - MgO, Al₂O₃, and ZrO₂ - were used for developing refractory insulation for high-temperature thermocouples. Wires from tungsten-rhenium alloys containing 5% (VR-5), 15% (VR-15), and 20% (VR-20) rhenium were annealed at 1,400-1,650C in

Card 1/2

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ACCESSION NR: AP3003205

0.001-torr vacuum and in hydrogen. VR-5/20 and VR-15/20 thermocouples were made from these 0.34-mm wires. The MgO caps and beads were tested separately for five hours in argon at 2,400C; they also worked in induction furnaces at temperatures up to 2,000C without appreciable vaporization or volatilization; however, in 10⁻⁴ -torr vacuum at temperatures over 1,600C, a "considerable wear was observed." Orig. art. has: no figure, formula, or table.

ASSOCIATION: Ukrainskiy nauchno-issledovatel skiy institut ogneuporov (Ukrainian Scientific-Research Institute of Refractories)

SUBMITTED: 00

DATE ACQ: 22Jul63

ENCL: 00

SUB CODE: IE

NO REF SOV: 001

OTHER: 002

Card 2/2

S/0226/64/000/004/0015/0020

ACCESSION NR: AP4044906

AUTHOR: Glady shevskiy, Ye. I., Lakh, V.I., Skolozdra, R.V., Stadny k, B.I.

TITLE: A study of the mutual solubility of disilicides of the transition metals belonging to groups IV, V, and VI

SOURCE: Poroshkovaya metallurgiya, no. 4, 1964, 15-20

TOPIC TAGS: silicide, disilicide, transition element, silicide solubility, solid solution, powder metallurgy

ABSTRACT: At the present time, the practical significance of the disilicides of the transition metals is constantly increasing, and great attention is being given to their investigation. The mutual solubility of the disilicides of transition metals belonging to groups IV, V, and VI has been investigated particularly thoroughly. Thus, of 36 possible binary systems, 20 were investigated earlier. The present authors have reduced the gap still further by investigating the systems TiSi2 - CbSi2, VSi2 - CrSi2, VSi2 - WSi2, ZrSi2 - CbSi2, ZrSi2 - WSi2, CbSi2 - MoSi2, CbSi2 - TaSi2, and CbSi2-WSi2, omitting only the scarce disilicides of hafnium. Radiographic and micrographic methods, as well as microhardness measurements, were used. The specimens were prepared by fusion of Card 1/4

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ACCESSION NR: AP4044906

high purity metals (content of basic metal not less than 99.5%) with silicon (99.99%) in an electric arc furnace with a watercooled copper base, using non-consumable tungsten electrodes and a helium atmosphere, and were annealed at 800C for 1500 hours. Powdergraphs taken in cylindrical chambers (d=57.3 mm) under Cr-K radiation were used for radiographic phase analysis, and lattice constants were determined by the method of Preston in a chamber 86.4 mm in diameter. Samples were etched in mixtures of con-Preston in a champer ob. 4 mm in diameter. Samples were eithed in mixtures of conscient and nitric acids. Microhardness was determined with a PMT-3 centrated hydrofluoric and nitric acids. Microhardness was determined with a PMT-3 hardness meter having an accuracy of + 25 dan/mm² (1 dan/mm² = 1.02 kg/mm²). All hardness meter having an accuracy of + 25 dan/mm² of the ternary systems Me^I - Me II-Si proved the investigated sections Me^ISi₂ - Me^{II}Si₂ of the ternary systems have alleged as a constant of the cities of to be pseudo-binary with limited or continuous solubility between the silicides. summary of the results with regard to the mutual solubility of the disilicides is given in Fig. 1 of the Enclosure. Continuous series of solid solutions formed in two of the eight systems (VSi₂ - CrSi₂ and CbSi₂ - TaSi₂). Like the other series known, these were formed between isostructural disilicides of metals which are very close neighbors in the periodic system (elements of one group, Cb-Ta, or of one period, V-Cr). In the six remaining disilicide systems, limited solid solutions were formed, consisting of nonisostructural compounds. The greatest mutual solubility was exhibited by disilicides

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ACCESSION NR: AP4044906

for which the values

$$F = \frac{\gamma M e^{1} - \gamma M e^{11}}{\gamma M e^{1}} \cdot 100,$$

TiSiz-NbSiz (F=0.7%):

were the smallest, where \(\gamma \text{Me}^i < \gamma \text{Me}^i \) these were \(\text{TiSi_NbSi_2} \) CbSi_2 - MoSi_2 (F=4.3%), CbSi_2-WSi_2 (F=3.6%), and VSi_2-WSi_2 (F=4.5%).

With an increase in the F-value, the reciprocal solubility decreased sharply: ZrSi₂ - CbSi₂ (F = 10.3) and ZrSi₂ - WSi₂ (F = 14.3%).

"M.I. By*chkova and S.A. Bakuta, as well as the students T.G. Fedoruk, A.A. Kulikova, L. A. Ly'senko, O. Ye. Slezko and G. I. Bova, participated in the investigations." Orig. art. has: 1 table and 7 figures.

ASSOCIATION: L'vovskiy gosuniversitet im. Iv. Franko (L'vov State University) SUB CODE: MM, IC

SUBMITTED: 02Jan63

ENCL: 01

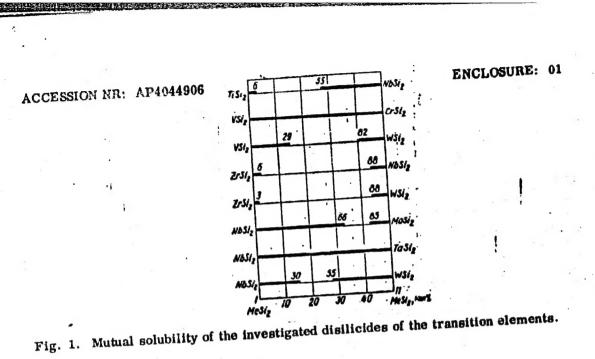
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OTHER: 010

Card 3/4

APPROVED FOR RELEASE: 08/25/2000

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Card 4/4

IJP(c) EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b)/EWA(h) S/0000/64/000/000/0168/0169 L 23875-65 JD/JG/MLK ACCESSION NR: AT5002772 AUTHOR: Kuz'ma, Yu. B.; Lakh. V.I.; Stadnyk, B.I.; Gladyshevskiy, Ye. I. TITLE: Xray structural analysis of alloys of the system W - Re - C SOURCE: Vsesoyuznoye soveshchaniye po probleme reniya. 2d, Moscow, 1962, Reniy (Rhenium); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1964, 168-169 TOPIC TAGS: rhenium, rhenium alloy, rhenium alloy structure, xray structural analysis, tungsten alloy, alloy carbon content, tungsten rhenium thermocouple, cast rhenium alloy, tungsten carbide ABSTRACT: The system W - Re - C was studied in order to elucidate the influence of carbon on the composition and properties of tungsten-rhenium thermocouples, which have recently come into widespread use. Cast alloys containing up to 40 at. % carbon, quenched after annealing at 2500, 2000, 1500, 1000, 800C, were subjected to x-ray analysis. The phase equilibria were established, and the corresponding isothermal sections were constructed. The negative influence of a carbon-containing atmosphere on the stability of tungsten-rhenium thermocouples (increase in brittleness) is attributed to the formation of a carbide corresponding to a continuous series of solid solutions Card 1/2

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ACCESSION NR: AT5002772

formed between Re and X-W2C, which were stable at all the investigated temperatures. An increase in lattice constants was observed in passing from Re to $\propto W_2C$. The compound W₃Re₂O was identified; in cast alloys and alloys annealed at 2500 and 2000C, it was found to be in equilibrium with the continuous solid solution between Re and \mathcal{K} -W₂C, with the solid solution based on W, and with the \mathcal{K} phase of the system W - Re. At 1500, 1000, and 800C W₃Re₂C is also in equilibrium with the \mathcal{K} phase of the system W - Re. The ternary carbide (W, Re) C (\mathcal{L} phase) was identified at temperatures above 2500C.

ASSOCIATION: none

SUBMITTED: 05Aug64

ENCL: 00

SUB CODE: MM

NO REF SOV: 000

OTHER: 001

Card 2/2

EWT(1)/EWP(e)/EPA(s)-2/EWG(k)/EWT(m)/EPF(c)/EPF(n)-2/EWG(v)/EPR/ pz-6/pc-4/pab-10/pe-5/p=-4/ps-4/pt-10/pu-4 1. 16289-65 EPA(w)-2/EWP(j)/T/EWP(t)/EWP(b) JD/WW/JG/AT/RM/WH \$/0294/63/002/004/0634/0647 IJP(c)/AEDC(b)/SSD/AFWL

ACCESSION NR: AP4044531

Stadny*k, B. I.; Samsonov, G. V. AUTHOR:

Thermocouples for high-temperature measurements

TITLE: Teplofizika vy*sokikh temperatur, v. 2, no. 4, 1964, 634-SOURCE:

647

TOPIC TAGS: thermocouple, noble metal alloy thermocouple, refractory metal alloy thermocouple, thermocouple property, thermocouple insulation material, thermocouple protection material

ABSTRACT: A review of pertinent Soviet and non-Soviet literature and some experimental results are presented on the accuracy, stability and limits of application of existing metallic thermocouples and their high-temperature protective insulation. Thermocouples made of metals and alloys of the platinum group, of which the PR 30/6 thermocouple (Pt with 30% Rh and Pt with 6% Rh) is the most stable, can be successfully used for measuring temperatures up to 1800C in an oxidizing atmosphere. However, they are not recommended for use in a

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